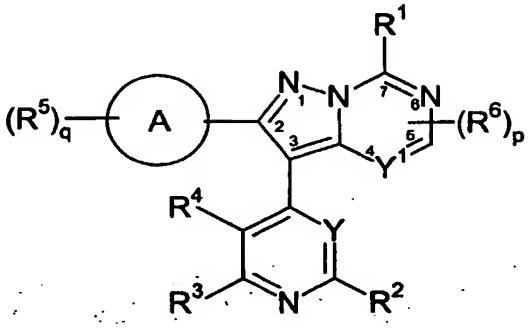
CLAIMS

1. A compound of formula (I):



I

wherein:

R^1 is selected from the group consisting of H, halo, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, Ay, Het, $-C(O)R^9$, $-C(O)Ay$, $-C(O)Het$, $-CO_2R^9$, $-C(O)NR^7R^8$, $-C(O)NR^7Ay$, $-C(S)NR^9R^{11}$, $-C(NH)NR^7R^8$, $-C(NH)NR^7Ay$, $-OR^7$, $-OAy$, $-OHet$, $-NR^7R^8$, $-NR^7Ay$, $-NHHet$, $-S(O)_nR^9$, $-S(O)_nAy$, $-S(O)_nHet$, $-S(O)_2NR^7R^8$, $-S(O)_2NR^7Ay$, $-R^{10}$cycloalkyl, $-R^{10}Ay$, $-R^{10}Het$, $-R^{10}OR^9$, $-R^{10}NR^7R^8$, $-R^{10}NR^7Ay$, $-R^{10}NHSO_2R^9$, $-R^{10}C(O)R^9$, $-R^{10}C(O)Ay$, $-R^{10}C(O)Het$, $-R^{10}CO_2R^9$, $-R^{10}OC(O)R^9$, $-R^{10}OC(O)Ay$, $-R^{10}OC(O)Het$, $-R^{10}C(O)NR^9R^{11}$, $-R^{10}C(O)NR^7Ay$, $-R^{10}C(O)NHR^{10}Het$, $-R^{10}C(S)NR^9R^{11}$, $-R^{10}C(NH)NR^9R^{11}$, $-R^{10}SO_2R^9$, $-R^{10}SO_2NR^9R^{11}$, $-R^{10}SO_2NHCOR^9$, $-R^{10}OS(O)_nR^9$, cyano, nitro and azido;

each R^7 and R^8 are the same or different and are independently selected from the group consisting of H, alkyl, cycloalkyl, alkenyl, cycloalkenyl, $-C(O)R^9$, $-CO_2R^9$, $-C(O)NR^9R^{11}$, $-C(S)NR^9R^{11}$, $-C(NH)NR^9R^{11}$, $-SO_2R^{10}$, $-SO_2NR^9R^{11}$, $-R^{10}$cycloalkyl, $-R^{10}Ay$, $-R^{10}Het$, $-R^{10}C(O)R^9$, $-R^{10}CO_2R^9$, $-R^{10}C(O)NR^9R^{11}$, $-R^{10}C(S)NR^9R^{11}$, $-R^{10}OR^9$, $-R^{10}NR^9R^{11}$, $-R^{10}NHCOR^9$, $-R^{10}NHC(NH)NR^9R^{11}$, $-R^{10}C(NH)NR^9R^{11}$, $-R^{10}NHSO_2R^9$, $-R^{10}SO_2NR^9R^{11}$, $-R^{10}SO_2R^{10}$ and $-R^{10}SO_2NHCOR^9$;

each R^9 and R^{11} are the same or different and are independently selected from the group consisting of H, alkyl, cycloalkyl, $-R^{10}$cycloalkyl, $-R^{10}OH$, $-R^{10}(OR^{10})_w$ where w is 1-10, and $-R^{10}NR^{10}R^{10}$;

each R^{10} is the same or different and is independently selected from the group consisting of alkyl, cycloalkyl, alkenyl, cycloalkenyl, and alkynyl;

n is 0, 1 or 2;

Ay is aryl;

Het is a 5- or 6-membered heterocyclic or heteroaryl group;

Y^1 is N or CH;

p is 0, 1 or 2 when Y^1 is CH,

p is 0 or 1 when Y^1 is N;

each R^6 is the same or different and is independently selected from the group consisting of H, halo, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, Ay, Het, $-C(O)R^9$, -C(O)Ay, -C(O)Het, $-CO_2R^9$, $-C(O)NR^7R^8$, $-C(O)NR^7Ay$, $-C(S)NR^9R^{11}$, $-C(NH)NR^7R^8$, $-C(NH)NR^7Ay$, $-OR^7$, -OAy, -OHet, $-NR^7R^8$, $-NR^7Ay$, -NHHet, $-S(O)_nR^9$, $-S(O)_nAy$, $-S(O)_nHet$, $-S(O)_2NR^7R^8$, $-S(O)_2NR^7Ay$, $-R^{10}$cycloalkyl, $-R^{10}Ay$, $-R^{10}Het$, $-R^{10}OR^9$, $-R^{10}NR^7R^8$, $-R^{10}NR^7Ay$, $-R^{10}NHSO_2R^9$, $-R^{10}C(O)R^9$, $-R^{10}C(O)Ay$, $-R^{10}C(O)Het$, $-R^{10}CO_2R^9$, $-R^{10}OC(O)R^9$, $-R^{10}OC(O)Ay$, $-R^{10}OC(O)Het$, $-R^{10}C(O)NR^9R^{11}$, $-R^{10}C(O)NR^7Ay$, $-R^{10}C(O)NHR^{10}Het$, $-R^{10}C(S)NR^9R^{11}$, $-R^{10}C(NH)NR^9R^{11}$, $-R^{10}SO_2R^9$, $-R^{10}SO_2NR^9R^{11}$, $-R^{10}SO_2NHCOR^9$, $-R^{10}OS(O)_nR^9$, cyano, nitro and azido;

or when p is 2, two adjacent R^6 groups together with the carbon atoms to which they are bonded form a cycloalkyl or a 5- or 6-membered heterocyclic group containing 1 or 2 heteroatoms;

Y is N or CH;

R^2 is selected from the group consisting of halo, alkyl, cycloalkyl, alkenyl, cycloalkenyl, Ay, Het, $-OR^7$, -OAy, -OHet $-NR^7R^8$, $-NR^7Ay$, -NHHet $-S(O)_nR^9$, $-S(O)_nAy$, $-R^{10}NR^7R^8$ and $-R^{10}NR^7Ay$;

R^3 and R^4 are the same or different and are each independently selected from the group consisting of H, halo, alkyl, alkenyl, cycloalkyl, Ay, Het, $-C(O)R^7$, C(O)Ay, $-CO_2R^7$, $-CO_2Ay$, $-OR^7$, -OAy, $-NR^7R^8$, $-NR^7Ay$, -NHHet, $-SO_2NHR^9$, $-R^{10}OR^7$, $-R^{10}$cycloalkyl, $-R^{10}OAy$, $-R^{10}NR^7R^8$ and $-R^{10}NR^7Ay$;

Ring A is selected from the group consisting of aryl, 5-10 membered heterocyclic group and a 5-10 membered heteroaryl group;

q is 0, 1, 2, 3, 4 or 5; and

each R^5 is the same or different and is independently selected from the group consisting of halo, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, Ay, Het,

$-C(O)R^9$, $-C(O)Ay$, $-C(O)Het$, $-CO_2R^9$, $-C(O)NR^7R^8$, $-C(O)NR^7Ay$, $-C(S)NR^9R^{11}$, $-C(NH)NR^7R^8$, $-C(NH)NR^7Ay$, $-OR^7$, $-OAy$, $-OHet$, $-NR^7R^8$, $-NR^7Ay$, $-NHHet$, $-S(O)_nR^9$, $-S(O)_2NR^7R^8$, $-S(O)_2NR^7Ay$, $-R^{10}$cycloalkyl, $-R^{10}Het$, $-R^{10}C(O)R^9$, $-R^{10}CO_2R^9$, $-R^{10}C(O)NR^9R^{11}$, $-R^{10}C(O)NR^7Ay$, $-R^{10}C(O)NHR^{10}Het$, $-R^{10}C(S)NR^9R^{11}$, $-R^{10}C(NH)NR^9R^{11}$, $-R^{10}OR^9$, $-R^{10}NR^7R^8$, $-R^{10}NR^7Ay$, $-R^{10}SO_2R^9$, $-R^{10}SO_2NR^9R^{11}$, $-R^{10}SO_2NHCOR^9$, cyano, nitro and azido; or

a pharmaceutically acceptable salt, solvate or physiologically functional derivative thereof.

2. The compound according to claim 1 wherein R^1 is selected from the group consisting of halo, alkyl, cycloalkyl, Ay, Het, $-OR^7$, $-OAy$, $-NR^7R^8$, $-NR^7Ay$, $-NHHet$, $-S(O)_nR^9$, $-R^{10}$cycloalkyl, $-R^{10}OR^9$, $-R^{10}NR^7R^8$ and $-R^{10}NR^7Ay$.

3. The compound according to claim 1 wherein R^1 is selected from the group consisting of alkyl, Het, $-OR^7$, $-NR^7R^8$, $-NR^7Ay$ and $-S(O)_nR^9$.

4. The compound according to any of claims 1-3 wherein Y^1 is CH.

5. The compound according to any of claims 1-3 wherein Y^1 is N.

6. The compound according to any of claims 1-5 wherein p is 0 or 1.

7. The compound according to any of claims 1-6 wherein each R^6 is the same or different and is independently selected from the group consisting of halo, alkyl, Ay, Het, $-C(O)Het$, $-CO_2R^9$, $-C(O)NR^7R^8$, $-C(O)NR^7Ay$, $-OR^7$, $-OAy$, $-NR^7R^8$, $-NR^7Ay$, $-NHHet$, $-S(O)_nR^9$, $-S(O)_nAy$, $-S(O)_nHet$, $-R^{10}OR^9$ and cyano.

8. The compound according to any of claims 1-6 wherein each R^6 is the same or different and is independently selected from the group consisting of halo, alkyl, Het, $-NR^7R^8$, $-NHHet$ and $-S(O)_nR^9$.

9. The compound according to any of claims 1-8 wherein Y is CH.

10. The compound according to any of claims 1-8 wherein Y is N.

11. The compound according to any of claims 1-10 wherein R^2 is selected from the group consisting of Ay, Het, $-OR^7$, -OAy, -OHet, $-NR^7R^8$, $-NR^7Ay$, -NHHet, $-S(O)_nR^9$, $-S(O)_nAy$, $-R^{10}NR^7R^8$ and $-R^{10}NR^7Ay$.

12. The compound according to any of claims 1-10 wherein R^2 is selected from the group consisting of $-NR^7R^8$, $-NR^7Ay$ and -NHHet.

13. The compound according to any of claims 1-12 wherein R^3 and R^4 are the same or different and are each independently selected from the group consisting of H, halo, alkyl, Ay, $-CO_2R^7$, $-OR^7$, $-NR^7R^8$, $-R^{10}OR^7$ and $-R^{10}NR^7R^8$.

14. The compound according to any of claims 1-12 wherein R^3 and R^4 are both H.

15. The compound according to any of claims 1-14 wherein Ring A is selected from the group consisting of aryl, a 5-6 membered heterocyclic or heteroaryl group and a 9-membered heterocyclic or heteroaryl group.

16. The compound according to any of claims 1-14 wherein Ring A is selected from the group consisting of phenyl, naphthyl, furan, pyridine, pyrimidine, thiazol, pyrazine, pyrrole, imidazole, oxazole, benzimidazole, quinoline, isoquinoline and quinoxoline.

17. The compound according to any of claims 1-14 wherein Ring A is selected from the group consisting of phenyl, furan, pyridine and pyrimidine.

18. The compound according to any of claims 1-14 wherein Ring A is phenyl.

19. The compound according to any of claims 1-18 wherein q is 0, 1 or 2.

20. The compound according to any of claims 1-19 wherein each R^5 is the same or different and is independently selected from the group consisting of halo, alkyl, alkenyl, Ay, Het, $-CO_2R^9$, $-C(O)NR^7R^8$, $-C(O)NR^7Ay$, $-OR^7$, -OAy, $-NR^7R^8$, $-NR^7Ay$, $-S(O)_2NR^7R^8$, cyano, nitro and azido.

21. The compound according to any of claims 1-19, wherein each R^5 is the same or different and is independently selected from the group consisting of halo, alkyl, $-OR^7$, $-NR^7R^8$ and cyano.

22. A compound selected from the group consisting of:

N-Cyclopentyl-3-[2-(cyclopentylamino)pyrimidin-4-yl]-2-(4-fluorophenyl)pyrazolo[1,5-*c*]pyrimidin-7-amine;

N-Cyclopentyl-3-[2-(cyclopropylamino)pyrimidin-4-yl]-2-(4-fluorophenyl)pyrazolo[1,5-*c*]pyrimidin-7-amine;

4-[2-(3-Chlorophenyl)pyrazolo[1,5-*c*]pyrimidin-3-yl]-*N*-cyclopentylpyrimidin-2-amine;

4-[2-(3-Chlorophenyl)-7-(methylthio)pyrazolo[1,5-*c*]pyrimidin-3-yl]-*N*-cyclopentylpyrimidin-2-amine;

2-(3-Chlorophenyl)-*N*-cyclopentyl-3-[2-(cyclopentylamino)-4-pyrimidinyl]pyrazolo[1,5-*c*]pyrimidin-7-amine;

4-[2-(3-Chlorophenyl)-7-(4-morpholinyl)pyrazolo[1,5-c]pyrimidin-3-yl]-N-cyclopentyl-2-pyrimidinamine;

2-(3-Chlorophenyl)-3-[2-(cyclopentylamino)-4-pyrimidinyl]-*N*-(2-methoxyethyl)pyrazolo[1,5-c]pyrimidin-7-amine;

2-(3-Chlorophenyl)-3-[2-(cyclopentylamino)-4-pyrimidinyl]pyrazolo[1,5-c]pyrimidin-7-ol;

N-Cyclopentyl-8-(2-fluoro-4-pyridinyl)-2-(methylsulfanyl)-7-phenylpyrazolo[1,5-*a*][1,3,5]triazin-4-amine;

N^2,N^4-Dicyclopentyl-8-[2-(cyclopentylamino)-4-pyridinyl]-7-phenylpyrazolo[1,5-*a*][1,3,5]triazine-2,4-diamine;

N-Cyclopentyl-8-[2-(cyclopentylamino)-4-pyrimidinyl]-7-phenylpyrazolo[1,5-*a*][1,3,5]triazin-4-amine;

3-[2-(Butylamino)pyrimidin-4-yl]-*N*-cyclopentyl-2-(4-fluorophenyl)pyrazolo[1,5-*c*]pyrimidin-7-amine;

3-(2-Anilinopyrimidin-4-yl)-*N*-cyclopentyl-2-(4-fluorophenyl)pyrazolo[1,5-*c*]pyrimidin-7-amine;

3-[2-(1,3-Benzothiazol-2-ylamino)pyrimidin-4-yl]-*N*-cyclopentyl-2-(4-fluorophenyl)pyrazolo[1,5-*c*]pyrimidin-7-amine;

N-Cyclopentyl-2-(4-fluorophenyl)-3-{2-[(4-methyl-1,3-thiazol-2-yl)amino]pyrimidin-4-yl}pyrazolo[1,5-*c*]pyrimidin-7-amine;

3-[2-(1*H*-Benzimidazol-2-ylamino)pyrimidin-4-yl]-*N*-cyclopentyl-2-(4-fluorophenyl)pyrazolo[1,5-*c*]pyrimidin-7-amine;

N-Cyclopentyl-3-{2-[(4-fluorobenzyl)amino]pyrimidin-4-yl}-2-(4-fluorophenyl)pyrazolo[1,5-*c*]pyrimidin-7-amine;

N-Cyclopentyl-2-(4-fluorophenyl)-3-{2-[(2-phenylethyl)amino]pyrimidin-4-yl}pyrazolo[1,5-*c*]pyrimidin-7-amine;

3-[2-(*tert*-Butylamino)pyrimidin-4-yl]-*N*-cyclopentyl-2-(4-fluorophenyl)pyrazolo[1,5-*c*]pyrimidin-7-amine;

N-Cyclopentyl-4-[2-(4-fluorophenyl)-7-(methylsulfanyl)pyrazolo[1,5-*c*]pyrimidin-3-yl]pyrimidin-2-amine;

N-Cyclopentyl-3-[2-(cyclopentylamino)pyrimidin-4-yl]-2-(4-methoxyphenyl)pyrazolo[1,5-*c*]pyrimidin-7-amine;

4-{7-(Cyclopentylamino)-3-[2-(cyclopentylamino)pyrimidin-4-yl]pyrazolo[1,5-*c*]pyrimidin-2-yl}phenol;

3-[2-(Cyclopentylamino)pyrimidin-4-yl]-*N*-cyclopropyl-2-(4-methoxyphenyl)pyrazolo-[1,5-*c*]pyrimidin-7-amine;

2-(4-Butoxyphenyl)-*N*-cyclopentyl-3-[2-(cyclopentylamino)pyrimidin-4-yl]pyrazolo[1,5-*c*]pyrimidin-7-amine;

N-Cyclopentyl-3-[2-(cyclopentylamino)pyrimidin-4-yl]-2-(4-isobutoxyphenyl)pyrazolo[1,5-*c*]pyrimidin-7-amine;

N-Cyclopentyl-3-[2-(cyclopentylamino)pyrimidin-4-yl]-2-[4-(2-methoxyethoxy)phenyl]pyrazolo[1,5-*c*]pyrimidin-7-amine;

N-Cyclopentyl-3-[2-(cyclopentylamino)pyrimidin-4-yl]-2-(4-propoxyphenyl)pyrazolo[1,5-*c*]pyrimidin-7-amine;

N-(*tert*-Butyl)-3-[2-(cyclopentylamino)pyrimidin-4-yl]-2-(4-fluorophenyl)pyrazolo[1,5-*c*]pyrimidin-7-amine;

N-Cyclopentyl-4-[2-(4-fluorophenyl)-7-pyrrolidin-1-ylpyrazolo[1,5-*c*]pyrimidin-3-yl]pyrimidin-2-amine; and

N-Cyclopentyl-4-[2-(4-fluorophenyl)-7-piperidin-1-ylpyrazolo[1,5-*c*]pyrimidin-3-yl]pyrimidin-2-amine, or

a pharmaceutically acceptable salt, solvate or physiologically functional derivative thereof.

23. A pharmaceutical composition comprising a compound according to any of claims 1-22.

24. The pharmaceutical composition according to claim 23 further comprising a pharmaceutically acceptable carrier or diluent.

25. The pharmaceutical composition according to any of claims 23-24 further comprising an antiviral agent selected from the group consisting of aciclovir and valaciclovir.

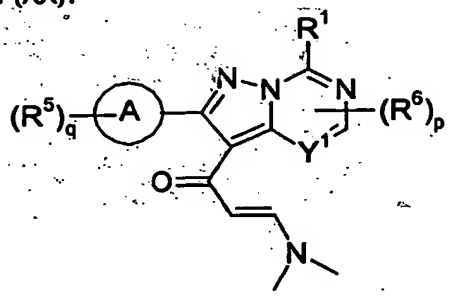
26. A method for the prophylaxis or treatment of a herpes viral infection in an animal, said method comprising administering to the animal a therapeutically effective amount of a compound according to any of claims 1-22.

27. The method according to claim 26 wherein said herpes viral infection is selected from the group consisting of herpes simplex virus 1, herpes simplex virus 2,

cytomegalovirus, Epstein Barr virus, varicella zoster virus, human herpes virus 6, human herpes virus 7 and human herpes virus 8.

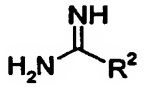
28. A method for the prophylaxis or treatment of a condition or disease associated with a herpes viral infection in an animal, comprising administering to the animal a therapeutically effective amount of the compound of formula (I) according to any of claims 1-22.

29. A process for preparing a compound according to any of claims 1-22 wherein Y^1 is CH; Y is N; R^2 is selected from the group consisting of alkyl, cycloalkyl, alkenyl, cycloalkenyl, Ay, Het, $-OR^7$, -OAy, -OHet $-NR^7R^8$, $-NR^7Ay$, -NHHet $-S(O)_nR^9$, $-S(O)_nAy$, $-R^{10}NR^7R^8$ and $-R^{10}NR^7Ay$; and R^3 and R^4 are H, said process comprising reacting a compound of formula (XX):



XX

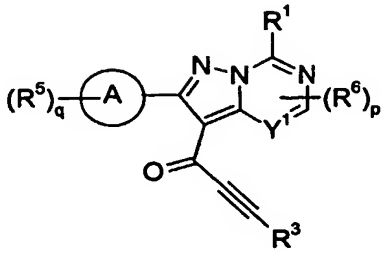
with a compound of formula (XXI):



XXI

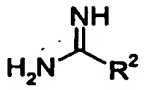
30. A process for preparing a compound according to any of claims 1-22 wherein Y is N; R^2 is selected from the group consisting of alkyl, cycloalkyl, alkenyl, cycloalkenyl, Ay, Het, $-OR^7$, -OAy, -OHet $-NR^7R^8$, $-NR^7Ay$, -NHHet $-S(O)_nR^9$, $-S(O)_nAy$, $-R^{10}NR^7R^8$ and $-R^{10}NR^7Ay$; R^3 is selected from the group consisting of H, alkyl, alkenyl, cycloalkyl, Ay, Het, $-C(O)R^7$, C(O)Ay, $-CO_2R^7$, $-CO_2Ay$, $-OR^7$, -OAy, $-NR^7R^8$ (where R^7 and R^8 are not H), $-NR^7Ay$ (where R^7 is H), $-SO_2NHR^9$, $-R^{10}OR^7$, $-R^{10}$cycloalkyl, $-R^{10}OAy$,

$-R^{10}NR^7R^8$ and $-R^{10}NR^7Ay$; and R^4 is H said process comprising reacting a compound of formula (XXV):



XXV

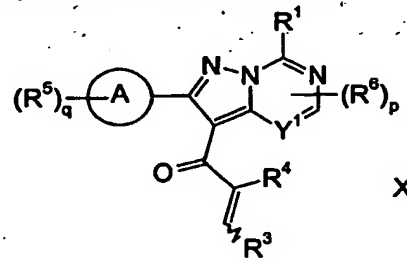
with a compound of formula (XXI):



XXI

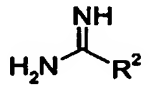
31. A process for preparing a compound according to any of claims 1-22 wherein Y is N and R^2 is selected from the group consisting of alkyl, cycloalkyl, alkenyl, cycloalkenyl, Ay, Het, $-OR^7$, -OAy, -OHet $-NR^7R^8$, $-NR^7Ay$, -NHHet $-S(O)_nR^9$, $-S(O)_nAy$, $-R^{10}NR^7R^8$ and $-R^{10}NR^7Ay$, said process comprising the steps of:

a) reacting a compound of formula (XXVIII):



XXVIII

with a compound of formula (XXI):

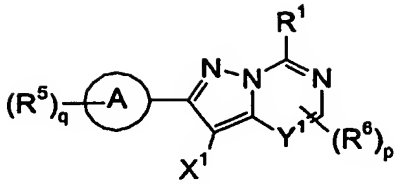


XXI

to prepare an intermediate compound; and

b) oxidizing the intermediate compound.

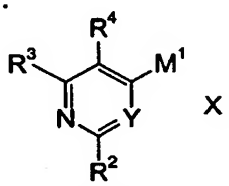
32. A process for preparing a compound according to any of claims 1-22 comprising reacting a compound of formula (XXX):



XXX

wherein X^1 is chloro, bromo or iodo;

with a compound of formula (X):



X

wherein M^1 is $-B(OH)_2$, $-B(ORa)_2$, $-B(Ra)_2$, $-Sn(Ra)_3$, Zn-halide, ZnRa, or Mg-halide where Ra is alkyl or cycloalkyl and halide is halo.

33. The process according to any of claims 29-32 further comprising the step of converting the compound of formula (I) to a pharmaceutically acceptable salt, solvate or physiologically functional derivative thereof.

34. The process according to any of claims 29-33 further comprising the step of converting the compound of formula (I) or a pharmaceutically acceptable salt, solvate or physiologically functional derivative thereof to another compound of formula (I) or a pharmaceutically acceptable salt, solvate or physiologically functional derivative thereof.

35. A compound according to any of Claims 1-22 for use in therapy.

36. A compound according to any of Claims 1-22 for the prophylaxis or treatment of a herpes viral infection in an animal.

37. A compound according to any of claims 1-22 for the prophylaxis or treatment of a condition or disease associated with a herpes viral infection in an animal.

38. The use of a compound according to any of claims 1-22 for the preparation of a medicament for the prophylaxis or treatment of a herpes viral infection.

39. The use of a compound according to any of claims 1-22 for the preparation of a medicament for the prophylaxis or treatment of a condition or disease associated with a herpes viral infection.

40. A pharmaceutical composition comprising a compound according to any of claims 1-22 for use in the prophylaxis or treatment of a herpes viral infection in an animal.